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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,497	10/27/2004	Keith Allen Huck		7658
36229	7590	05/03/2006		
KEITH A. HUCK 12316 MYLES CT STERLING HGTS., MI 48313			EXAMINER SCHARICH, MARC A	
			ART UNIT 3611	PAPER NUMBER

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/804,497	Applicant(s) HUCK, KEITH ALLEN	
	Examiner Marc A. Scharich	Art Unit 3611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/27/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 October 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The listing of references (prior relevant art) in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." *However*, the references (prior relevant art) have been considered and cited by the examiner on form PTO-892 to expedite the examining process, thus an additional separate Information Disclosure Statement (IDS) is not required.

Specification

2. The specification is objected to because of the following informalities: The abstract of the disclosure is objected to because of a misspelled word. On line 5, the word "varity" should be changed to "variety".

The *Brief Summary of the Invention* is objected to because of a misspelled word. On line 12, "varity" should be changed to "variety".

Additionally, the specification contains the drawing (Figure 1). It is required that drawings be *separate* from the specification, such as *not* containing a page number sequential with the specification and *not* being placed in between the *Brief Description of the Drawing* and *Detailed Description of the Preferred Embodiments*. The content of the specification should be organized, without the drawing (Figure 1), as follows:

Content and arrangement of Specification

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).
- (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.

Or alternatively, Reference to a "Microfiche Appendix": See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.
- (f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
 - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
 - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to

Art Unit: 3611

specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."

- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the

Art Unit: 3611

applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).

- (l) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

Appropriate correction is required for the above stated objections.

Drawings

3. The drawing (Figure 1) is objected to because it is included in the specification, and is in a format that does not meet drawing requirements. The examiner suggests removing the page number (Page 11), the title block (that lists the inventor name and application number), and the title of the application "Article of Manufacture.....", thus leaving only the drawing and the title "Figure 1". In addition, the examiner suggests removing the descriptions next to the letters, thus leaving just A, B, C, D and the leaders with arrowheads. *IN ADDITION* to the examiner's suggestions, the drawing (Figure 1) has been reviewed by a USPTO Draftsperson and a Notice of Draftsperson's Patent Drawing Review (PTO-948) has been attached with this office action. It is recommended to make any necessary changes to comply with the PTO-948 review requirements.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate

Art Unit: 3611

prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claims 1 and 2 are objected to because of the following informalities: In claim 1, line 8 contains the misspelled word "verity", which should be changed to "variety". Additionally in claim 2, line 8 contains the misspelled word "varity", which should be changed to "variety". Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. Claims 1 and 2 are rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified. For instance, in claim 1, the preamble "An article of manufacture for a hollow one piece plastic injected molded bicycle frame comprising" must only comprise the makeup or structure of the claim preamble, thus the injection mold, or a mold which produces a tin bismuth core is *NOT* part of the makeup of a bicycle frame. In addition, a product and process or process steps for making the product may *NOT both* be claimed within the same claim. The structure must be organized and correlated in such a manner as to present a complete operative device. The claim(s) must be in one sentence form only. *Note the format of the claims in the patent(s) cited.*

Additionally, Claim 2 claims essentially the same content as claim 1, however states in the preamble, "A process for a hollow one piece plastic injection molded frame comprising the steps of:". Based on what is claimed, claim 2 is *NOT* a process claim. As previously discussed above, a product and process for making the product may *NOT both* be claimed within the same claim. The examiner has continued examination with respect to claims 1 and 2 (searching for prior art) as best understood, despite the 35 U.S.C. 112, second paragraph rejections.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 3611

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin, U.S. Patent No. 5,544,907 in view of Bartel, U.S. Patent No. 6,270,710.

With regard to claims 1 and 2, Lin discloses a one-piece composite (polymeric), hollow bicycle frame with a Y-shaped tubular configuration (Figure 1a) that is free from welding or brazing, the bicycle frame able to attach to: a front fork assembly [via the hollow head tube sleeve **27**], a seat assembly [via the seat tube sleeve **28**], a pedal crank assembly [via the bottom bracket sleeve **29**], and a rear wheel assembly [via the support of paws **22** and **23** connected to dropouts **21** and **21'**]. Additionally, Lin discloses in the abstract that the hollow tubes of the bicycle may comprise of at least a fibrous material with impregnated resin, therefore, such resin may be selected as a variety of polymers (resin) are available to choose from.

What Lin fails to disclose, however, is that the hollow composite bicycle frame is made from a process that produces a tin-bismuth core and utilizes injection molding to ultimately produce a hollow frame structure. Bartel, U.S. Patent No. 6,270,710, however, discloses a process for manufacturing hollow plastic objects, and more specifically, discloses a process for molding a hollow motor intake tube. Column 2, lines 43-49 disclose "The process steps in the manufacture of such an intake tube are the manufacture of the core in a low-pressure process from a tin-bismuth alloy. This core is taken from the casting mold and placed in an injection molding machine. After thermoplastic synthetic resin material is injected all around the core, the core is melted out and the synthetic resin object is washed out." As Bartel teaches in column 1, line

Art Unit: 3611

60, the process described above permits "seamless joining together". Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize a process that produces a tin-bismuth core and utilizes injection molding to ultimately produce a hollow tubular structure, such as bicycle frame, to avoid seams that could split or crack over time as the bicycle is used.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Chang, U.S. Patent No. 6,065,765 discloses a method of molding and assembling a lighter, less expensive bicycle frame. Gueugneaud, U.S. Patent No. 5,857,690 discloses a bicycle frame made of composite material, and discusses a method for molding such a bicycle frame. Ramond, U.S. Patent No. 4,015,854 discloses a unitary molded bicycle frame. Thompson, Jr. U.S. Patent No. 3,833,242 discloses a bicycle frame that is molded in one piece with a hard exterior skin covering a structural foam interior. Benson, U.S. Patent No. 6,679,215 discloses an injection molded air intake manifold that discuses creating a tin-bismuth inner core and injection molding process for creating hollow orifices.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc A. Scharich whose telephone number is (571) 272-3244. The examiner can normally be reached on M-F 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley Morris can be reached on (571) 272-6651. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3611

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M.A.S. 4/27/2006


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